

AMENDMENTS TO THE SPECIFICATION

The Specification is amended to insert proper section headings and to arrange the Specification in correct order in accordance with U.S. practice. A Substitute Specification is attached. Please amend the Specification as follows:

Page 1, after the Title, insert the following:

BACKGROUND OF THE INVENTION

Page 3, line 11:

~~Disclosure of the Invention~~ **BRIEF SUMMARY OF THE INVENTION**

Page 7, line 23, insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] Fig. 1 is a schematic diagram showing an example of the structure of a thin film-forming apparatus according to the present invention.

Fig. 2 is a schematic diagram showing the structure of a sample used for the evaluation of film characteristics in each Example.

Fig. 3 is a graph showing the dependency of the leak electric current density of a PZT thin film, observed when a voltage of 1.5 V is applied thereto, on the surface area of inner wall of the gas activating means.

Fig. 4 is a graph showing the dependency of the polarization-inversion charge density of a PZT thin film observed when a voltage of 2.0 V is applied thereto, on the surface area of inner wall of the gas activating means.

Fig. 5 is a graph showing the dependency of the polarization-saturation voltage of a PZT thin film on the surface area of inner wall of the gas activating means.

Fig. 6 is a graph showing the dependency of the leak electric current density of a PZT thin film, observed when a voltage of 1.5 V is applied thereto, on the rate of oxygen flow rate in the gas mixture on the basis of the total gases introduced.

Fig. 7 is a diagram showing the X-ray diffraction pattern observed for a PZT thin film.

Fig. 8 is a graph showing the dependency of the rate of the PZT (111) intensity, on the basis of the total orientation intensity of a PZT thin film as determined by the XRD, on the flow rate of oxygen in the film-forming gas.

Fig. 9 is a graph showing the dependency of the leak electric current density of a PZT thin film, observed when a voltage of 1.5 V is applied thereto, on the flow rate of oxygen used in the preparation of the initial layer.

Fig. 10 is a graph showing the dependency of the polarization-inversion charge density of a PZT thin film, observed when a voltage of 2.0 V is applied thereto, on the flow rate of oxygen used in the preparation of the initial layer.

Fig. 11 is a graph showing the dependency of the polarization-saturation voltage on the flow rate of oxygen used in the preparation of the initial layer.

Fig. 12 is a graph showing the dependency of the leak electric current density of a PZT thin film, observed when a voltage of 1.5 V is applied thereto, on the flow rate of oxygen used in the preparation of the initial layer.

Fig. 13 is a graph showing the dependency of the polarization-inversion charge density of a PZT thin film, observed when a voltage of 2.0 V is applied thereto, on the flow rate of oxygen used in the preparation of the initial layer.

Fig. 14 is a graph showing the dependency of the polarization-saturation voltage of a PZT thin film on the flow rate of oxygen used in the preparation of the initial layer.

Fig. 15 is a diagram showing the X-ray diffraction (XRD) pattern observed for a PZT thin film.

Fig. 16 is a graph showing the dependency of the rate of the pyrochlore phase in the XRD intensity on the composition of Pb/(Zr+Ti).

Fig. 17 is a graph showing the dependency of the rate of the pyrochlore phase in the XRD intensity on the composition of Pb/(Zr+Ti) present in the initial layer.

Fig. 18 is a graph showing the dependency of the polarization-inversion charge density on the composition of Pb/(Zr+Ti) present in the initial layer.

Fig. 19 is a graph showing the dependency of the polarization-saturation voltage on the composition of Pb/(Zr+Ti) present in the initial layer.

Fig. 20 is a graph showing the dependency of the rate of the pyrochlore phase in the XRD intensity on the composition of Pb/(Zr+Ti) present in the initial layer.

Fig. 21 is a graph showing the dependency of the polarization-inversion charge density on the composition of Pb/(Zr+Ti) present in the initial layer.

Fig. 22 is a graph showing the dependency of the polarization-saturation voltage on the composition of Pb/(Zr+Ti) present in the initial layer.

Fig. 23 is a graph showing the dependency of the leak electric current density of a PZT thin film, observed when a voltage of 1.5 V is applied thereto, on the surface area of inner wall of the gas activating means.

Fig. 24 is a graph showing the dependency of the polarization-inversion charge density of a PZT thin film, observed when a voltage of 2.0 V is applied thereto, on the surface area of inner wall of the gas activating means.

Fig. 25 is a graph showing the dependency of the polarization-saturation voltage on the surface area of inner wall of the gas activating means.

DETAILED DESCRIPTION OF THE INVENTION

Page 26, paragraphs beginning at line 13:

Brief Description of the Drawings

[0077]

~~Fig. 1 is a schematic diagram showing an example of the structure of a thin film-forming apparatus according to the present invention.~~

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Fig. 15 is a diagram showing the X-ray diffraction (XRD) pattern observed for a PZT thin film.

Fig. 16 is a graph showing the dependency of the rate of the pyrochlore phase in the XRD intensity on the composition of $\text{Pb}/(\text{Zr}+\text{Ti})$.

Fig. 17 is a graph showing the dependency of the rate of the pyrochlore phase in the XRD intensity on the composition of $\text{Pb}/(\text{Zr}+\text{Ti})$ present in the initial layer.

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~~Fig. 23 is a graph showing the dependency of the leak electric current density of a PZT thin film, observed when a voltage of 1.5 V is applied thereto, on the surface area of inner wall of the gas activating means.~~

~~Fig. 24 is a graph showing the dependency of the polarization inversion charge density of a PZT thin film, observed when a voltage of 2.0 V is applied thereto, on the surface area of inner wall of the gas activating means.~~

~~Fig. 25 is a graph showing the dependency of the polarization saturation voltage on the surface area of inner wall of the gas activating means.~~